XVI.—Field-Notes on the Birds of Chili. By Ambrose A. Lane. With an Introduction and Remarks by P. L. Sclater*.

[Continued from p. 51.]

51. Bubo magellanicus (Gm.).

Bubo magellanicus, Sharpe, B. M. C. ii. p. 29.

(Vilugo, N.W. of Sacaya.)

I was informed that this Owl occurs in the southern provinces, but I did not see any or get any authentic record of it during my residence there. It is found in the Andes in the northern provinces, and is known to the natives of all the places that I visited on the Bolivian frontier, who said it was an occasional visitor, but not unfrequent, and was called "Jucu," probably on account of its cry. The Jucu is said to hunt small animals by night, resting during the day on some cliff. It is said to nest on cliffs and to lay about four eggs. The iris is of a gamboge-yellow.

52. GLAUCIDIUM NANUM (King).

Glaucidium nanum, Sharpe, B. M. C. ii. p. 196.

(Rio Bueno.)

This is a widely-distributed species in Chili, occurring probably from Coquimbo down to the most southerly provinces on the mainland, and also on Chiloe. It is generally known as the "Chunchu," and appears everywhere to be a resident species.

The sexes are similar in appearance. The feet are ochreyellow, claws black; the iris canary-yellow.

These Owls generally remain during the daytime in dense coppies and become very active after dark. They are more plentiful in the south, where it appeared to me they assumed a more ruddy tint in colour than those further north. They are more numerous about cultivated districts than in the forests; they feed on small birds and insects.

At Rio Bueno this Owl nested in December and January. I think the brood consists of about four. It is occasionally

^{* [}The localities given after the names of the species in brackets are those of Mr. Lane's specimens, which are now in the British Museum.—P. L. S.]

found abroad in the daytime, and the light does not seem to affect it so much as it does the larger Owls.

The note is to be heard at all hours: it is a "to-whitto-whi" rather softly uttered, and expressed by the Germans as "wie geht's, wie geht's." I had a pair of them alive for some time: they were brought me when young but full-grown. They never got tame, and on being approached threw themselves into the furthest corner of the cage, puffing and snapping their bills, whilst their big eyes were glaring and distended to the fullest. If the hand was put forward they rolled on their backs and made fight with beaks and claws. I did not know at the time that they killed small birds, so when I got them at first I put them along with some other birds, but I soon found them out. The first thing I discovered was that a little Thinocorus rumicivorus, which I had kept under difficulties for a long time, had had its head eaten off in the night by these Chunchus: they also made onslaught on some young Thrushes. I then kept them about a month alone in a box and fed them on bits of meat, but one died; and as I thought the box was too severe confinement, I tied the other by the leg in a garden where I had some hawks. Here, although the little Chunchu proved able to defend itself from dogs, cats, and rats, it was accidentally crushed to death. However, it had never got much tamer, and was always ducking its large head from side to side and peering about, as if seeking a way of escape.

53. Speotyto cunicularia (Mol.).

Spectyto cunicularia, Sharpe, B. M. C. ii. p. 142; Scl. P. Z. S. 1891, p. 135.

(Hacienda Mansel.)

This is a widely distributed species; it occurs throughout Northern Chili wherever the locality is suitable, and is plentiful through the central provinces as far south as Arauco, below which I did not hear of it.

In the province of Tarapacá it occurs in oases and in the desert immediately surrounding them. In such localities it is known as the "Cau-cauhuc"; in Chili proper it is called the "Piquen."

These Owls are generally found outside their burrow in daytime, and when anyone approaches they invariably attract attention by their discordant screeching. They will be observed sitting on a rock or stump, and if approached fly a short distance to a similar post and continue their harsh screeches. Their burrow is of considerable length, and usually excavated in the slope of a hill or on a sandy bank.

I was told that they occurred up to 10,000 feet in the cordilleras of Tarapacá. In Arauco I only observed them on the open sandy stretches near Laraqueti, where they were undoubtedly resident. The iris is of bright gamboge-yellow.

54. Buteo erythronotus (King).

Buteo erythronotus, Sharpe, B. M. C. i. p. 172; Scl. P. Z. S. 1891, p. 135.

(Cancosa and S.W. of Sacaya.)

I only met with specimens of this species in the cordilleras of Tarapacá, but I believe it has a considerable range and occurs in the highest altitudes.

At Sacaya it was known as the "Aguila," or Eagle. The dark specimen that I got (No. 258) was regarded by the natives as a distinct species; they called it the "Halcon." The lighter specimen was smaller, but appeared the same, except in colouring. The legs and feet of both these birds were of a buff-yellow, the claws black. These birds are essentially birds of prey, but are said to capture fishes at times in the small streams.

I was told that they nest very early in the season on some cliff, and lay two white eggs.

55. Antenor unicinctus (Temm.).

Erythrocnema unicincta, Sharpe, B. M. C. i. p. 84.

(No specimen in B. M. from Mr. Lane.)

This species occurs on the low-lying stretches of swampy or sandy plain which occur in the vicinity of the coast of Central and Southern Chili, as well as in similar localities inland, and also on open stretches of country.

It is generally known as the "Penco." It occurs in places about Valdivia, and probably on Chiloe, and I heard that its

range extended for some distance further south. It frequently alights on the ground, though where trees occur by its haunts it will sit for a long time on some solitary branch or on the topmost bough.

56. Accipiter Chilensis, Ph. et Landb. *Accipiter chilensis*, Sharpe, B. M. C. i. p. 155. (Maguegua.)

I got the single female specimen of this Hawk sent home about ten miles north of the station of Maquegua, right in the forest, though it was near a small clearing. I think the men there called it a "Penco," but they did not appear to know much about it, saying that it was seldom seen.

It measured 17 inches long. The legs and feet were of dark olive-yellow, the claws brownish, black at the tips. Bill dark, black at the tip. These birds are said to be destructive to fowls.

+57. FALCO FUSCO-CÆRULESCENS (Vieill.).

Falco fusco-cærulescens, Sharpe, B. M. C. i. p. 400; Scl. P. Z. S. 1891, p. 135.

(Vilugo, two days south of Sacaya.)

I was told that these birds visit Sacaya frequently at certain times, and are known as the "Man-man." They occur at elevations up to 11,000 feet at any rate, and are said to be resident.

58. Tinnunculus cinnamominus (Sw.).

Cerchneis cinnamomina, Sharpe, B. M. C. i. p. 439.

(Arauco, Rio Bueno, and Llanquehui.)

This is by far the most numerous of the family in Chili. It is plentiful from Valparaiso to Chiloe, and probably extends much further south, and also further north. The general local name is "Cernicalo," by which it appears to be known everywhere.

These Kestrels are very plucky and kill a great many small birds. I thought at first they only lived on beetles and other insects, but I found one with a freshly-killed bird in its talous. They frequently mob the Traro (*Polyborus tharus*) and other large birds. They prefer open plains or partially open dis-

tricts, and often perch on telegraph-posts and railings. They do not seem to touch birds of the Starling-sort, as Curaeus aterrimus and Trupialis militaris. I have never observed them hover, like their English congener, but otherwise they bear much resemblance to the latter, and their note is as frequently uttered, being of the same sort, but in a higher key.

I had several specimens alive during my stay in the south, and kept them easily by tying them to a stake with a cord. Adults would be hard to tame, but young birds become thoroughly so; they require to be tied where they can perch on a stake or pole, on the top of which they will sit all day. Those I had all escaped or were accidentally killed. The young have a softer quavering cry; this was constantly uttered by one that I kept whilst I was skinning specimes. When I approached with a piece of meat this bird would fly at it, seizing it adroitly in his claws and carrying it to his perch to eat.

+ 59. Elanus leucurus (Vieill.).

Elanus leucurus, Sharpe, B. M. C. i. p. 339.

(Laraqueti.)

This handsome bird occurs, I am told, not unfrequently on moors and swamps near the coast of Central Chili. I found it at Laraqueti and Arauco, but am not sure how far south it extends, as I heard of a bird answering the description occurring about Valdivia.

A female procured at Laraqueti was in adult white plumage. The legs and feet were deep chrome, the claws black. Bill black; gape and nostrils orange-buff. Iris (large) poppy-red. This bird had three or four mice in its stomach, one of which was almost whole.

60. MILVAGO CHIMANGO (Vieill.).

Ibycter chimango, Sharpe, B. M. C. i. p. 41.

This is a common species all through Central and Southern Chili, especially about arable land, where it takes the place of the genus *Corvus* in other countries, and feeds similarly. It is rather more numerous in Chiloe than in any other locality which I visited, and is known everywhere as the "Tinque" or "Trinque."

Its discordant cry is heard ever and anon when one rides about, and in the southern provinces in the winter-time, when the country looks most blank and dreary and the rain falls unceasingly, the cry of the Tinque will be heard as if complaining of the wretched situation, and is enough to make anyone feel dismal.

These birds feed on a variety of substances, more especially insects and reptiles. I have seen a flock hovering round a man ploughing, just the same as the Rook does here. They are very partial to carrion and offal, and are always present on the sea-beach and by rivers and lakes, where they feed on fish, shell-fish, &c.

I found a nest of this species in the south about the 1st of November, containing three very young birds, covered with white down. It was placed in a low tree in a coppice, about 9 or 10 feet above the ground, and well concealed. It was a little over 1 foot in diameter, and roughly made, though compact in the centre. The outside was a mixture of twigs. sticks, and straw, which formed the bulk; in this was a layer of dry grass or fibre, made fairly compact, and a warm lining of wool completed the structure. I have seen a Tinque alight on the back of an ox, which by sundry hitches and twitchings made it fly off. Then it went on another of the herd, which likewise was evidently too much tickled by its strong talons, and got rid of it by a whisk of the tail; but the persevering bird finally succeeded in staying on one lying down, which appeared too fat and lazy to trouble about it, and remained a long time, running up and down and searching busily for insects on the hide.

61. Milvago megalopterus.

Ibycter megalopterus, Sharpe, B. M. C. i. p. 36; Scl. P. Z. S. 1891, p. 135.

(Sacaya and Cancosa.)

I met with these birds in the cordilleras of Tarapacá, when I invariably observed them in pairs. They were not

uncommon and generally appeared on the wing, circling round not far above the surface of the ground, which they quartered carefully as they passed along, lingering about any spot where they hoped to discover some object in the way of food.

They are called "Caracancho" by the Indians, and are found at all altitudes above 6000 feet. The nest consists of llama wool, twigs, &c., and is roughly made on the ledge of a cliff.

62. Polyborus tharus (Mol.).

Polyborus tharus, Sharpe, B. M. C. i. p. 31.

(Rio Bueno.)

This bird occurs in limited numbers in the Central Provinces, increasing southwards and becoming plentiful about Valdivia and on the Laguna. It was known everywhere as the "Traro."

Like the Milvagoes they are harmless birds, and of no inconsiderable use in demolishing carrion. Their size and appearance would suggest a bird of great strength and ferocity, destructive to all their lesser fellows; but, on the contrary, they are quite inoffensive, so far as I could ascertain.

The female is somewhat larger than the male, but I fancy attains the same amount of colour.

They nest in the forests on high trees, and at other seasons are frequently seen in flocks of from six to a dozen. They feed on carrion, insects, and reptiles. They also seek for worms on the arable land.

Their note is a harsh grunting or croaking noise, louder and more grating than that of the Raven, the place of which they appear to occupy in this portion of the globe. It is not often heard, except during the breeding-season. I have frequently seen them mobbed by the small Kestrel. On one occasion I shot one of the latter which I noticed attacking something in a tree, screaming and continually swooping at it. This proved to be a large Traro, which was concealed in the evergreen foliage.

+63. CATHARTES AURA (Linn.). *Œnops aura*, Sharpe, B. M. C. i. p. 25.

(Corral.)

This bird is numerous on the coast in North and Central Chili, and is distributed generally inland and throughout the greater part of the continent. I observed it in the south as far as I went, but from Valparaiso south it decreases, and *C. atratus* becomes more plentiful. In Tarapacá I observed it up to 5000 feet, but did not hear of its occurrence in higher regions.

It is properly called the "Joté," but is constantly looked upon as the same species as *C. atratus*, and called "Gallinazo," especially where both intermingle.

When these birds cannot find carrion they seek for refuse on the sea-beach, disputing fish-remains with Gulls and other sea-birds. They appear to be entirely mute, but possess remarkable faculties of sight and smell.

+ 64. Cathartes atratus (Bartr.).

Catharistes atratus, Sharpe, B. M. C. i. p. 24.

(Laraqueti.)

This species is similar to the foregoing in all respects, and resembles it in appearance; but is more numerous in south temperate Chili. It is called the "Gallinazo," from gallina = a hen, to which, when on the ground, they have some resemblance, at least to a distant observer. It nests in the forests of the southern provinces, where it is more arboreal in habits than on the coast.

In Ancud (Chiloe) these birds may be seen sitting in rows on the house-tops all through the town. The further south I went the more numerous they became on the coast. Both species are very harmless and useful, especially *C. aura* in the northern districts, where their presence as scavengers is indispensable. In the south it is not so necessary, and they are always assisted by *Polyborus tharus* and *Milvago chimango*.

65. Sarcorhamphus gryphus, Sharpe, B. M. C. i. p. 20.

I saw Condors in Tarapacá, but never got close to them.

They are not plentiful, and are said to be gradually decreasing. All the old residents stated that they once existed in enormous quantities, the reason of their decrease being said to be that the railways have reduced the number of beasts of burden, on the carcases of which they fed.

They are extremely wary, and I was unable to get one in the cordilleras, although I made an Indian watch for them a long time by a dead donkey, which is supposed to be a special attraction.

66. Pelecanus molinæ, Gray.

(Coronel.)

This Pelican occurs plentifully about the coast of Northern and Central Chili, and is generally called "Alcatrás" by the natives. I obtained a specimen of the adult male at Coronel during the winter season. I saw five of these birds flying across the harbour of Corral (Valdivia) in October 1890. However, I was told they only occur there sparingly in summer time. I believe they are frequently captured in a calm by fishermen, not being capable of rising in smooth water.

+ 67. Sula variegata (Tsch.).

This is a numerous species on the west coast of South America, especially about Northern Chili.

I have only observed them out at sea, or flying parallel to the beach well out of gun-shot. They may be readily distinguished when feeding, which they do like their congeners, dropping vertically into the water, sometimes from a height of from twenty to thirty feet.

On 28th Dec., 1889, while on board the s.s. 'Puno' going to Iquique, I saw large quantities of these birds outside Coquimbo. There was evidently a shoal of fish beneath, for they kept dropping into the water so fast and in such numbers that the effect was remarkable, and can only be described as resembling a shower of large hailstones.

I did not notice them south of Arauco, but I believe they occur at Valdivia in summer time, and perhaps further south. I did not hear of a Chilian breeding-place, but was

told that these birds form most of the guano-deposits on the Peruvian coast.

+68. Phalacrocorax brasilianus (Gm.).

(Laraqueti.)

These birds may be considered the most numerous amongst the sea-fowl of the Chilian coast, becoming more plentiful as one goes south. They penetrate up the rivers, so as to be often found almost at the base of the Andes and on comparatively small streams.

They are generally called "cuervo" (crow), but in some inland localities are perhaps better known as "pato negro" (black duck). They vary considerably in size, the males being larger; a female which I measured was only 20 inches long, and the other measurements were smaller in proportion. The iris is a lustrous myrtle-green.

These birds have a strong disagreeable odour. They are perhaps partially migratory, but I should not consider them gregarious, although at Corral I have seen about two hundred together in the harbour, which when disturbed flew away in a continuous line, like Petrels.

When on the rivers they usually occur singly, flying up and allowing themselves to drift down stream whilst fishing. They feed by diving like Grebes, and often remain three or four minutes under water. They sit for long intervals on rocks or snags in mid-stream or even in low trees by the banks of the smaller rivers. By the sea-shore they sit on the rocks, often in groups of from three to thirty. Sometimes on being approached they utter their deep note, which is a bass grunt, and often (if seated) hold out the wings as if preparatory to flight.

They usually swim with only the head and neck above water, but can also swim with the body above the surface; if approached they fly off with apparent facility, and are always rather wary. I was told on good authority that about spring or summer time at Maquegua (province of Arauco) large flocks fly up the river about sunset, and roost in a part of the forest about ten miles inland, where the trees and

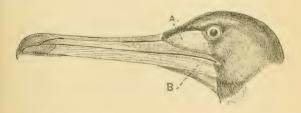
ground are covered with their excrements. The flight is steady, and sometimes they keep at a considerable height, though as a rule they fly low along the water.

69. Phalacrocorax gaimardi (Garnot).

(Corral.)

I found this Cormorant plentiful off Corral (Valdivia but not nearly so numerous as *P. brasilianus*. They did not appear to come into the harbours or up the rivers, but kept outside a few miles off the land.

I noticed that they swim with the body up, like Ducks. The local name is "Lile," or "Pajaro Lile," but this is also generally applied to all the other species of Cormorant that occur there except *P. brasilianus*.



The legs, feet, and web of *P. gaimardi* are of a light coralred, and the claws are black. The bill is a cadmium-yellow, greenish brown along the top, and at the base of the upper mandible (A) of a bright orange-vermilion, blending into the yellow (see woodcut). The base of the lower mandible (B) is similar in colour, but not so bright. These birds have the disagreeable odour of other Cormorants, but in a lesser degree.

A handsome white-breasted Cormorant* occurs on the Valdivian coast during winter time, as well as some other species, but they all retire south in the summer time to breed.

^{* [}Probably P. imperialis. See 'Challenger' Reports, Birds, p. 120.—P. L. S.]

70. ARDEA COCOI, Linn.

This species is reported as a regular winter visitant to Valdivia, the Rio Bueno, Pilmaiguen, &c., and the Laguna Llanquehui. I believe the natives call it the "Pillo," which name is properly applied to the Maguári Stork. The Germans call it "Silber-reiher" (=Silver Heron).

+ 71. Ardea egretta (Gm.).

Ardea egretta, Sclater, P. Z. S. 1891, p. 135.
(Sacaya.)

This species ranges all through Chili, occurring even at Sacaya. It is most numerous in the central provinces, and not so common in the south.

The note is harsh, but not often heard. These birds are very wary. I have seen them on streams close to the seabeach, but never actually on salt-water. Like A. candidissima, they are often seen in flocks where plentiful.

- 72. Ardea candidissima (Gm.).

Ardea candidissima, Sclater, P. Z. S. 1891, p. 135.
(Sacaya.)

This Egret is numerous on rivers or swamps in Central Chili, where it is known as the "Garzetta"; I did not see any in Arauco, though a few may come there in summer, and further south I did not hear of it. I got one at Sacaya, as well as a specimen of A. egretta. I was told that they had never come there previously; at all events they appeared to be chance migrants.

73. Nycticorax obscurus, Bp.

Nycticorax obscurus, Sclater, P. Z. S. 1891, p. 136. (Sacaya.)

The Night-Heron is common all through Central and Southern Chili, the most general local name being "Huara," and in some places called "Huarabo."

I have forwarded an egg, which I was informed belonged to this species; I got it from a man who was a thorough naturalist and not likely to make mistakes. The birds are usually met alone, and, as a rule, by a river or stream. They sit during the daytime in some thick bush or tree by

the water, and at dusk repair to some favourite feedingground. Their note, when on the wing, is the usual loud quawk peculiar to Night-Herons.

The bird that I brought home for the Zoological Society's Gardens* was obtained for me by a friend at Coronel, just before I was leaving, otherwise I fear I should hardly have managed to keep it alive, as out of the number of birds I had, off and on, very few survived, and of these only the Night-Heron and one Chimango lived through the journey. The former was a young bird; I do not know its sex.

These birds also make a cackling noise, very loud and harsh, if disturbed; but this is not often to be heard from the wild birds, unless closely approached, which their watchful timidity seldom permits.

74. PHŒNICOPTERUS ANDINUS, Phil.

Phænicopterus andinus, Sclater, P. Z. S. 1891, p. 136. Phænicoparrus andinus, Salvad. B. M. C. xxvii. p. 21. (Cancosa.)

These birds appear to be resident at Huasco and Cancosa, where they are known by Bolivians as "Parina." They always inhabit the salt lagunes, so far as I could ascertain. They are very wary, and from the openness of their resorts are most easily obtained with a rifle, a well-placed bullet sent into a flock sometimes bringing down three or four. When disturbed they take wing, uttering trumpet-like notes, and after making a wide circuit at a considerable height alight about two or three miles off.

Their average length is about 40 inches; bill (point to rictus) 3.75; tail 9, apparently consisting of two middle rectrices and six lateral each side. The wing measures 17 inches, the expanse about 64; the tibia 10; the tarsus 8.5; middle toe, with short blunt nail or claw, 2.5; hind toe absent. The fore part of the bill is black, the base a strawyellow, verging into flesh-colour on the top, the lower portion

^{* [}This bird was received by the Zoological Society and presented by Mr. James on May 21st, 1891. It was entered as N. riolaceus, but I have no doubt this was an error. It was in immature plumage.—P. L. S.]

being wine-purple. Legs and feet pale yellow. The young birds, I was told, are white, or nearly so.

75. CHLOEPHAGA MELANOPTERA (Eyton).

Bernicla melanoptera, James, New Cat. p. 9; Sclater, P.Z.S. 1891, p. 136.

Chloephaga melanoptera, Salvad. B. M.C. xxvii. p. 129. (Cueva Nigra, Lake Huasco, and Sacaya.)

I only met these birds in the cordilleras of Tarapaca, where they breed and appear to be resident. The Bolivians call them the "Huaillata" (pronounced Wy-l-ya-ta). They are said to occur at certain times all through Chili, where they are known as the "Piuquen." They perhaps reside in small numbers in certain localities, but are most likely, on the whole, a migratory species.

I was told that when shot in lowland localities the flesh is strong, but I thought those I ate in the cordilleras exceedingly palatable; however, a keen appetite and uncertain supply gives great flavour to such dishes.

I found a nest of this Goose at Cancosa on Jan. 29th, 1890. It was placed in a hole in a low sandy cliff, and I had to get the men with me to lower me from the top with a lasso, which I secured to my body. It was a rather tedious operation, as I had to remain hanging in a most unenviable position for about three-quarters of an hour, and the high wind blew the sand unceasingly into my eyes. I could see the old female Goose sitting on the nest, which she stubbornly refused to leave; but she was just beyond my reach where I hung.

I then got a man to go below, and placed myself in communication with him by means of a cord. He provided me with the ramrod of a muzzle-loader, and with that, after a while, I got a slip-knot round the Goose, and going on one side, let the man haul her out from below, so that she was pulled fluttering to the ground. I now found that the eggs were in a slight hollow, so that, although I tied some bits of stick crosswise on the end of the ramrod, so as to make a most efficient rake, I had some difficulty in extracting them.

The bottom of the hollow forming the nest was profusely filled with feathers. This structure I could not remove entire, so I had to rake it out by handfuls and let the man below get as much as he could in his "poncho" before the wind took it off. I got all the eggs out one by one and lowered each in a handkerchief to the Indian, and when I had scraped all the feathers out as well, I was glad enough to come down and get my breath.

These nests are sometimes, I was told, placed some miles from water and at a considerable height from the ground, so it would be interesting to know how the young birds a few days old get to the ponds on which they are subsequently found. The nesting-season seems to extend through January and February. As soon as the young can be got to a pond or laguna, they are watched most vigilantly by the two old birds, and when an intruder approaches the male goes off, sometimes pretending to be wounded, overland, whilst the female takes to the water, closely followed by her progeny. They feed chiefly on grasses or vegetable matter in the marshes. Their note when approached is a deep harsh cackling; they are not noisy, like the Common Goose, though they utter sounds when in company. An Indian told me that they lay, as a rule, about 12 eggs; but I did not see more than five young in a clutch, and the clutch I took appeared to be complete though fresh.

76. Cygnus nigricollis (Gm.).

Cygnus melunocoryphus, Salvad. B. M. C. xxvii. p. 39. (Rio Pilmaiguen.)

This Swan occurs all through Central and Southern Chili, and is generally known as the "Cisne." I was told they breed in Patagonia or the far south. They are more or less migratory.

I heard of a White Swan occurring near Rio Bueno now and then. This was most likely the Coscoroba (Coscoroba candida); but I did not meet with it whilst there, and conclude that it is an irregular visitant in limited numbers.

77. HETERONETTA MELANOCEPHALA (Vicill.). Heteronetta atricapilla, Salvad. B. M. C. xxvii. p. 325. (Rio Pilmaiguen.)

I got one example only of this Duck on the Rio Pilmaiguen, Feb. 19th, 1890. I had not observed any like it before, so it may be one of the numerous visitors which I was told come to this locality in the cold season.

78. Anas specularis.

Anas specularis, Salvad. B. M. C. xxvii. p. 215.

(Rio Pilmaiguen.)

I first came on these birds at Rio Bueno, and do not know how far they extend elsewhere, but they appear to be well known.

The correct Spanish name of this Duck is "Pato antiojillo" (=Spectacle-Duck), but the natives about Rio Bueno called it "Pato real," probably knowing nothing of spectacles, and therefore not seeing the appropriate application of the term to the peculiar face-markings of this species.

A fine adult male measured 2 feet long; bill 2.25 inches to rictus, 1.9 to base of culmen. The legs and feet were orange, the claws black at the tips; the web between the toes blackish. Iris black. Bill slate, almost plumbeous.

I always found this Duck near the banks of the rivers where shaded by the forest, and never on fields or open marshes. It may be found on streams in the dense forest where no other species occur.

79. Anas cristata.

Anas cristata, Salvad. B. M. C. xxvii. p. 216.

(Sacaya, Sitani, and Lake Huasco.)

I found this species only in the Andes of Tarapacá, where it was common enough, and was perhaps partially resident. It nested at Huasco and Sacaya from January to March, in sedge or rushes, preferring little islands in the midst of ponds. As well as I could ascertain, the clutch is usually five or six.

The iris Chinese-orange. The flesh of this Duck is very good eating.

+80. Querquedula cyanoptera.

Querquedula cyanoptera, Salvad. B. M. C. xxvii. p. 303; P. Z. S. 1891, p. 136.

(Sacaya and Sitani.)

This handsome species was not so numerous in the Andean portion of Tarapaca as the other Ducks which I obtained there, and was also more local. I found it subsequently in the southern provinces, and was told that at certain seasons it is numerous in Chiloe. On the whole, it would appear to be a migratory species. It is generally known as the "Pato colorado" (or Coloured Duck).

It nested at Sacaya about January in sedge or rushes.

+ 81. Querquedula versicolor.

Querquedula versicolor, Salvad. B. M. C. xxvii. p. 291. (Rio Bueno.)

I got one specimen only of this handsome little Duck on the 4th January, 1890, close to the junction of the R. Pilmaiguen with the R. Bueno. It appeared to be an adult male.

82. Querquedula oxyptera (Meyen).

Nettion oxypterum, Salvad. B. M. C. xxvii. p. 262; Scl. P. Z. S. 1891, p. 136.

(Sacaya.)

At first I confused this species with the Chilian Pintail, which it resembles most closely, except for its mottled head and smaller size; moreover the first specimens I got were full-grown flappers, which gave me the idea that they were the young of the common species, and it was not until I shot a full-winged specimen that I found out the truth, and this was also admitted by an Indian, who called it "Paspa chica." They were not so common as the Pintail, and I did not meet with it in the south.

83. QUERQUEDULA PUNA (Tsch.).

Querquedula puna, Salvad. B. M. C. xxvii. p. 293; Scl. P. Z. S. 1891, p. 136.

(Sacaya.)

I found this species only about Sacaya and Cancosa,

where it bred during January and February in the marshes. The length of an adult male is 18.5 inches, bill 2 to rictus, tail 4. The iris is black; the legs and feet bright slategrey; the claws black.

The female is perhaps slightly smaller. The bill is mostly glaucous blue, with a line of black down the top of the culmen, the tip also being black.

The local name of this Duck is "Cherito."

84. DAFILA SPINICAUDA (Vieill.).

Dafila spinicauda, Salvad. B. M. C. xxvii. p. 279; Scl. P. Z. S. 1891, p. 136.

(Rio Pilmaiguen, Corral, and Rio Bueno.)

This is the commonest representative of the Anatidæ in Chili, and probably occurs in every province. In the south it is called "Pato comun," or "jergon" (the common or ugly duck); and in the highlands of Tarapacá the Bolivians call it "Paspa." It occurred here up to 12,000 feet.

The male is larger than the female, an adult measuring 22 inches long, tail 5.5, wing 10. The feet are of a dark greyish drab. The end of the bill is black, and this colour continues in a well-defined line along the upper surface to the base of the culmen; the sides are a bright maize-yellow.

These Ducks are mostly migratory, but appeared as if resident to a certain extent at Sacaya, where they breed from October to February. The nest is placed amongst sedge or bushes and contains from four to six eggs.

85. MARECA SIBILATRIX.

Mareca sibilatrix, Salvad. B. M. C. xxvii. p. 236.

(Rio Pilmaiguen.)

This species I did not hear of north of Valdivia. It is plentiful about the Chiloe Archipelago and adjacent mainland; it is known as the "Pato real," which name is also applied to Anas specularis. I did not meet any about Rio Bueno until about February, and then observed them in flocks by the Rio Pilmaiguen as if they had come from some breeding-haunt. Their note is a Wigeon-like whistle.

86. SPATULA PLATALEA (Vieill.).

Spatula platalea, Salvad. B. M. C. xxvii. p. 316.

(Rio Pilmaiguen and Rio Bueno.)

This species is numerous in the southern provinces, and generally known as the "Pato cuchara" (=Spoon-Duck). I found them by the Rio Pilmaiguen from December to March, where they probably breed. I do not know how far north they extend.

The legs and toes are ochraceous buff colour, the web between the toes being a clay-colour. Claws black. The bill in most fully developed specimens is a rich black; in some (perhaps younger) birds it has a mottled appearance. The iris is dark brown. The female is not quite so large as the male.

87. TACHYERES CINEREUS (Gm.).

Tachyeres cinereus, Salvad. B. M. C. xxvii. p. 373. (Corral.)

I found some of these Ducks in the bay of Corral about October and November, but I believe they are more plentiful in the cold season. The local name is "Quetar" or "Quaitar."

88. Erismatura ferruginea, Eyt.

Erismatura ferruginea, Salvad. B. M. C. xxvii. p. 449. (Rio Pilmaiguen.)

I met with these birds on ponds or backwaters by the Rio Pilmaiguen, where they appeared, as well as I could make out, about the beginning of February. They seem to be incapable of flight, relying entirely on their power of diving, which equals that of the Grebes. The female is perhaps slightly smaller than the male.

[To be continued.]